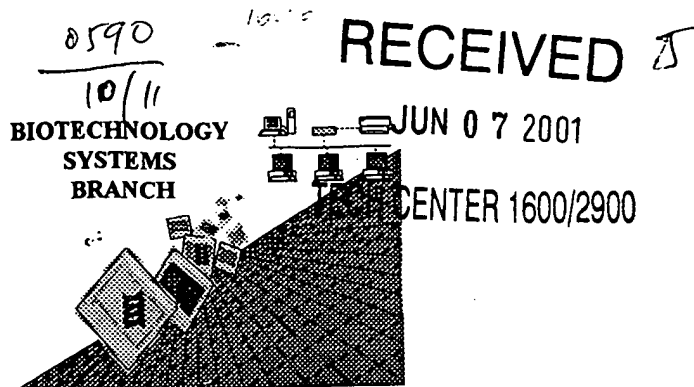


RAW SEQUENCE LISTING
ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/771,536A

Source: 1600

Date Processed by STIC: 5/21/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

ERROR DETECTED SUGGESTED CORRECTION

SERIAL NUMBER:

09/22/536A

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 ☐ Wrapped Nucleics The number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 2 ☐ Wrapped Aminos The amino acid number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 3 ☐ Incorrect Line Length The rules require that a line not exceed 72 characters in length. This includes spaces.
- 4 ☐ Misaligned Amino Acid Numbering The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
- 5 ☐ Non-ASCII This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.
- 6 ☐ Variable Length Sequence(s) ☐ contain n's or Xaa's which represented more than one residue.
As per the rules, each n or Xaa can only represent a single residue.
Please present the maximum number of each residue having variable length and indicate in the (ix) feature section that some may be missing.
- 7 ☐ PatentIn ver. 2.0 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) ☐. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies primarily to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 8 ☐ Skipped Sequences (OLD RULES) Sequence(s) ☐ missing. If intentional, please use the following format for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X:
(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:
This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
- 9 ☐ Skipped Sequences (NEW RULES) Sequence(s) ☐ missing. If intentional, please use the following format for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 10 ☐ Use of n's or Xaa's (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 11 ☐ Use of "Artificial" (NEW RULES) Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules.
Valid response is Artificial Sequence.
- 12 ☒ Use of <220>Feature (NEW RULES) Sequence(s) ☐ are missing the <220>Feature and associated headings.
Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial Sequence" or "Unknown"
Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)
- 13 ☐ PatentIn ver. 2.0 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).
Instead, please use "File Manager" or any other means to copy file to floppy disk.

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/771,536A

DATE: 05/21/2001
TIME: 11:40:39

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\05212001\I771536A.raw

**Does Not Comply
Corrected Diskette Needed**

OK 3 <110> APPLICANT: Langridge, William
4 Yu, Jie
5 Arakawa, Takeshi
7 <120> TITLE OF INVENTION: Transgenic Plant-Based Vaccines
9 <130> FILE REFERENCE: 12273-3
11 <140> CURRENT APPLICATION NUMBER: US/09/771,536A
12 <141> CURRENT FILING DATE: 2001-01-29
14 <160> NUMBER OF SEQ ID NOS: 15
16 <170> SOFTWARE: PatentIn version 3.0
18 <210> SEQ ID NO: 1
19 <211> LENGTH: 376
20 <212> TYPE: DNA
21 <213> ORGANISM: Vibrio cholerae
23 <400> SEQUENCE: 1
24 atgattaaat taaaatttgg tgtttttttt acagttttac tatcttcagc atatgcacat 60
26 ggaacacctc aaaatattac tgatttgtgt gcagaatacc acaacacaca aatacatagc 120
28 ctaaagata agatattgtc gtatacagaa tctctagctg gaaacagaga gatggctatc 180
30 attactttta agaatgggtc aacttttcaa gtagaagtag caggtagtca acatatagat 240
32 tcacaaaaaa aagcgattga aaggatgaag gataccctga ggattgcata tcttactgaa 300
34 gctaaagtcg aaaagttatg tgtatggaat aataaaacgc ctcattgcgat tgccgcaatt 360
36 agtatggcaa attggc 376
39 <210> SEQ ID NO: 2
40 <211> LENGTH: 36
41 <212> TYPE: DNA
42 <213> ORGANISM: primer
44 <400> SEQUENCE: 2
45 gctctagagc caccatgatt aaattaaaat ttgggt 36
48 <210> SEQ ID NO: 3
49 <211> LENGTH: 41
50 <212> TYPE: DNA
51 <213> ORGANISM: primer
53 <400> SEQUENCE: 3
54 ctggagctcg ggccccggcc catttgccat actaattgcg g 41
57 <210> SEQ ID NO: 4
58 <211> LENGTH: 391
59 <212> TYPE: DNA
C--> 60 <213> ORGANISM: Vibrio cholerae plus artificial sequence
W--> 62 <220> FEATURE:
W--> 62 <223> OTHER INFORMATION:
62 <400> SEQUENCE: 4
63 atgattaaat taaaatttgg tgtttttttt acagttttac tatcttcagc atatgcacat 60
65 ggaacacctc aaaatattac tgatttgtgt gcagaatacc acaacacaca aatacatagc 120
67 ctaaagata agatattgtc gtatacagaa tctctagctg gaaacagaga gatggctatc 180
69 attactttta agaatgggtc aacttttcaa gtagaagtag caggtagtca acatatagat 240
71 tcacaaaaaa aagcgattga aaggatgaag gataccctga ggattgcata tcttactgaa 300
73 gctaaagtcg aaaagttatg tgtatggaat aataaaacgc ctcattgcgat tgccgcaatt 360
75 agtatggcaa attggcccgag gcccgggata a 391

Per 1.823 of

Sequence Rules,
a 22137

response containing
"artificial sequence"
needs explanation

in 2207-2237
section

(See circled portion
of item 12 on Error
Summary Sheet)

RAW SEQUENCE LISTING

DATE: 05/21/2001

PATENT APPLICATION: US/09/771,536A

TIME: 11:40:39

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF3\05212001\I771536A.raw

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78 <210> SEQ ID NO: 5
79 <211> LENGTH: 54
80 <212> TYPE: DNA
81 <213> ORGANISM: Vibrio cholerae
83 <400> SEQUENCE: 5
84 atggtaaaga taatatttgt gttttttatt ttcttatcat cattttcata tgca 54
87 <210> SEQ ID NO: 6
88 <211> LENGTH: 24
89 <212> TYPE: DNA
90 <213> ORGANISM: primer
92 <400> SEQUENCE: 6
93 accaatacat tacactagca tctg 24
96 <210> SEQ ID NO: 7
97 <211> LENGTH: 27
98 <212> TYPE: DNA
99 <213> ORGANISM: primer
101 <400> SEQUENCE: 7
102 gactgagtgat gatattatgt gtaatac 27
105 <210> SEQ ID NO: 8
106 <211> LENGTH: 66
107 <212> TYPE: DNA
108 <213> ORGANISM: Rotavirus sp.
110 <400> SEQUENCE: 8
111 gataggttga ctactagaga aattgaacaa gttgaattgt tgaagagaat ttacgataag 60
113 ttgact 66
116 <210> SEQ ID NO: 9
117 <211> LENGTH: 60
118 <212> TYPE: DNA
119 <213> ORGANISM: primer
121 <400> SEQUENCE: 9
122 gccgagctcg ataagttgac tactagggag attgagcaag ttgagttggt gaagaggatt 60
125 <210> SEQ ID NO: 10
126 <211> LENGTH: 60
127 <212> TYPE: DNA
128 <213> ORGANISM: primer
130 <400> SEQUENCE: 10
131 gccgagctca caactcatcc ttctcagaag tcaacttato gtaaactctc ttcaacaact 60
134 <210> SEQ ID NO: 11
135 <211> LENGTH: 488
136 <212> TYPE: DNA
137 <213> ORGANISM: Vibrio cholerae and Rotavirus sp.
139 <400> SEQUENCE: 11
140 atgattaaat taaaatttgg tgtttttttt acagttttac tatcttcagc atatgcacat 60
142 ggaacacctc aaaatattac tgatttgtgt gcagaatacc acaacacaca aatacatagc 120
144 ctaaattgata agatattgtc gtatacagaa tctctagctg gaaacagaga gatggctatc 180
146 attactttta agaatggtgc aacttttcaa gtagaagtac caggtagtca acatatagat 240
148 tcacaaaaaa aagcgattga aaggatgaag gataccctga ggattgcata tcttactgaa 300
150 gctaaagtcg aaaagttatg tgtatggaat aataaaacgc ctcagcgat tgccgcaatt 360
152 agtatggcaa attggcccag gcccgggaga gctcgataag ttgactacta gggagattga 420

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RAW SEQUENCE LISTING DATE: 05/21/2001
 PATENT APPLICATION: US/09/771,536A TIME: 11:40:39

Input Set : A:\Sequence Listing.txt
 Output Set: N:\CRF3\05212001\I771536A.raw

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154 gcaagttgag ttgttgaaga ggatttacga taagttgact tctgagaagg atgagttgtg      480
156 agctctaa                                     488
159 <210> SEQ ID NO: 12
160 <211> LENGTH: 444
161 <212> TYPE: DNA
162 <213> ORGANISM: Escherichia coli
164 <400> SEQUENCE: 12
165 gtagagaaaa atattactgt aacagctagt gttgatcctg taattgatct tttgcaagct      60
167 gatggcaatg ctctgccatc agctgtaaag ttagcttatt ctcccgcatc aaaaactttt      120
169 gaaagttaca gagtaatgac tcaagttcat acaaacgatg caactaaaaa agtaattgtt      180
171 aaacttgctg atacaccaca gtttacagat gttctgaatt caactgttca aatgcctatc      240
173 agtgtgtcat ggggaggaca agtattatct tctacaacag ccaaagaatt tgaagctgct      300
175 gctttgggat attctgcac cggtgtaaat ggcgtatcat cttctcaaga gttagtaatt      360
177 agcgctgcac ctaaaactgc cggtaccgcc ccaactgcag gaaactattc aggagtagta      420
179 tctcttgtaa tgactttggg atcc                                     444
182 <210> SEQ ID NO: 13
183 <211> LENGTH: 141
184 <212> TYPE: DNA
185 <213> ORGANISM: Vibrio cholerae
187 <400> SEQUENCE: 13
188 atcagtaata cttgcgatga aaaaacccaa agtctaggtg taaaattcct tgacgaatac      60
190 caatctaaag ttaaaagaca aatattttca ggctatcaat ctgatattga tacacataat      120
192 agaattaaag atgagttgtg a                                     141
195 <210> SEQ ID NO: 14
196 <211> LENGTH: 54
197 <212> TYPE: DNA
198 <213> ORGANISM: Vibrio cholerae
200 <400> SEQUENCE: 14
201 atggtaaaga taatatttgt gttttttatt ttcttatcat cattttcata tgca          54
204 <210> SEQ ID NO: 15
205 <211> LENGTH: 651
206 <212> TYPE: DNA
207 <213> ORGANISM: Vibrio cholerae and Escherichia coli
209 <400> SEQUENCE: 15
210 atggtaaaga taatatttgt gttttttatt ttcttatcat cattttcata tgcagtcgac      60
212 gtagagaaaa atattactgt aacagctagt gttgatcctg taattgatct tttgcaagct      120
214 gatggcaatg ctctgccatc agctgtaaag ttagcttatt ctcccgcatc aaaaactttt      180
216 gaaagttaca gagtaatgac tcaagttcat acaaacgatg caactaaaaa agtaattgtt      240
218 aaacttgctg atacaccaca gtttacagat gttctgaatt caactgttca aatgcctatc      300
220 agtgtgtcat ggggaggaca agtattatct tctacaacag ccaaagaatt tgaagctgct      360
222 gctttgggat attctgcac cggtgtaaat ggcgtatcat cttctcaaga gttagtaatt      420
224 agcgctgcac ctaaaactgc cggtaccgcc ccaactgcag gaaactattc aggagtagta      480
226 tctcttgtaa tgactttggg atccgctgcac atcagtaata cttgcgatga aaaaacccaa      540
228 agtctaggtg taaaattcct tgacgaatac caatctaaag ttaaaagaca aatattttca      600
230 ggctatcaat ctgatattga tacacataat agaattaaag atgagttgtg a          651

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VERIFICATION SUMMARY
PATENT APPLICATION: US/09/771,536A

DATE: 05/21/2001
TIME: 11:40:40

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\05212001\I771536A.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number
L:60 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:4
L:62 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:62 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION: